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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|-------------------|-----------------------|-------------------------|------------------|
| 10/789,515 | 02/27/2004 | Paul Hammonds | 194-34483-US | 7737 |
| 44871 | 7590 07/11/2006 | | EXAMINER | |
| • | MOSSMAN & SRIRAI | KRISHNAMURTHY, RAMESH | | |
| 2603 AUGUSTA SUITE 700 | | | ART UNIT | PAPER NUMBER |
| HOUSTON | HOUSTON, TX 77057 | | | |
| | | | DATE MAILED: 07/11/2006 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|--|--|--|--|--|--|
| Office Assists Over | 10/789,515 | HAMMONDS ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Ramesh Krishnamurthy | 3753 | | | | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | orrespondence address | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA: Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period value is a facility of the provision of the provision of the provision of the maximum statutory period value is a facility of the provision of the provisio | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be timused and will expire SIX (6) MONTHS from a cause the application to become ABANDONE | N. nely filed the mailing date of this communication. D (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on 04 M | <u>ay 2006</u> . | | | | | |
| 2a) ☐ This action is FINAL . 2b) ☑ This | This action is FINAL . 2b)⊠ This action is non-final. | | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | |
| 4)⊠ Claim(s) <u>1 - 20</u> is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) 17-20 is/are withdraw | 4a) Of the above claim(s) 17-20 is/are withdrawn from consideration. | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1 - 16</u> is/are rejected. | 6)⊠ Claim(s) <u>1 - 16</u> is/are rejected. | | | | | |
| 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/o | r election requirement. | | | | | |
| Application Papers | | | | | | |
| 9)☐ The specification is objected to by the Examine | r. | | | | | |
| 10)⊠ The drawing(s) filed on <u>06/08/2004</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | |
| Priority under 35 U.S.C. § 119 | Carrier and and and an area | 7.00.07.07.07.07.02. | | | | |
| • | neigribu under 25 H.S.C. S. 110(a) |) (d) or (f) | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: | | | | | | |
| 1. ☐ Certified copies of the priority documents have been received. | | | | | | |
| Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). | | | | | | |
| * See the attached detailed Office action for a list | of the certified copies not receive | ed. | | | | |
| | | | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) | | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) | | | | | | |
| Paper No(s)/Mail Date <u>02/27/2004</u> . 6) Other: | | | | | | |

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This office action is responsive to communications filed 05/04/2006.

Claims 1 – 20 are pending.

1. Applicant's election without traverse of Invention I (claims 1 - 16) in the reply filed on 05/04/2006 is acknowledged.

2. Claims 17 – 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 05/04/2006.

Claims 1 – 16 remain for further consideration.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8 – 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "an incipient drag reducer" in line 2 that appears to be a double inclusion of the corresponding limitation in line 2 of the parent claim 1.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 7-9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Allyn (US 4,722,363).

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Allyn discloses a method of introducing a drag reducer in to a hydrocarbon fluid stream flowing through a pipeline (11) the method comprising admixing two components – one from (16, 20) and the other from (24, 30) wherein the drag reducer components are admixed at the site of the fluid stream at desired rates.

- 7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 9. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allyn (US 4,722,363) as applied to claims 1-3, 7-9 and 12 above, and further in view of Inomata et al. (US 2002/0008049 A1).

The patent to Allyn discloses the claimed invention with the exception of explicitly disclosing the hydrocarbon stream to be the product of passage through a desalter and/or a dehydrator.

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Inomata et al. discloses (paragraph [0002]) that it is common practice in the art to provide pretreatments such as dehydration and desalting for the purpose of obtaining the separation of crude oil into desired component fractions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Allyn the hydrocarbon stream that is the product of passage through a desalter and/or a dehydrator since it is common practice in the art to provide pretreatments such as dehydration and desalting for the purpose of obtaining the separation of crude oil into desired component fractions, as evident from lnomata et al.

10. Claims 10 - 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allyn (US 4,722,363) as applied to claims 1 - 3, 7 - 9 and 12 above, and further in view of Babenko (US 2002/0002994 A1).

The patent to Allyn discloses the claimed invention with the exception of explicitly disclosing varying the injection rate of the drag reducer based on a property of the fluid stream.

Babenko discloses that it is known in the art to vary the injection rate of the drag reducer (paragraph [0042]) based on the property of the fluid stream for the purpose of obtaining effective drag reduction.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Allyn varying the injection rate of the drag reducer based on a property of the fluid stream, for the purpose of obtaining effective drag reduction, as evident from Babenko.

11. Claims 13 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allyn (US 4,722,363) as applied to claims 1 - 3, 7 - 9 and 12 above, and further in view of Thompson et al. (US 6,849,581).

The patent to Allyn discloses the claimed invention with the exception of explicitly disclosing the first drag reducer component to be an aluminum monocarboxylate and the second component to be a carboxylic acid.

Thompson et al. discloses that it is known in the art to provide a drag reducer made from two components – a carboxylic acid and one or more metal salt of carboxylic acids (which here is taken to include both sets of drag reducer compositions recited in claims 13 and 14) for the purpose of obtaining desired drag reduction.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Allyn a drag reducer comprising carboxylic acid and a metal salt thereof for the purpose of obtaining a desired drag reduction, as recognized by Thompson et al.

12. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being obvious over Allyn (US 4,722,363).

The patent to Allyn discloses the claimed invention with the exception of explicitly disclosing the temperature of admixing the components to be either sub-ambient or supra-ambient.

To provide admixing of the components at either sub-ambient or supra-ambient temperatures is considered to be a design expedient over those features disclosed in

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Allyn in that it neither provides any new and/or unexpected result nor solves any stated

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problem.

13. The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ramesh Krishnamurthy whose telephone number is

(571) 272 - 4914. The examiner can normally be reached on Monday - Friday from

10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number

for the organization where this application or proceeding is assigned is (571) 273 -

8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Ramesh Krishnamurthy, Ph.D., PE

Primary Examiner

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